

- B1 amended
- d) an opaque means (44) positioned in the pathway (32) of the emission radiation (30) or excitation radiation (14) for erasing the central part of the emission radiation (30) or excitation radiation (14).
-

REMARKS

Claims 18-37, submitted hereby in place of claims 1-17, are pending.

Claim 18 represents claim 1 amended to include the subject matter of claim 5, i.e., determining the distribution function of particles by fitting the experimentally determined probability functions $\hat{P}_1(\mathbf{n}_1), \hat{P}_2(\mathbf{n}_2), \dots$ by corresponding theoretical probability functions $P_1(\mathbf{n}_1), P_2(\mathbf{n}_2), \dots$. In addition, it is specified that said theoretical distributions $P_1(\mathbf{n}_1), P_2(\mathbf{n}_2), \dots$ are calculated as functions of apparent concentrations and apparent brightness which depend on the width of the counting time interval. Applicant submits that of the detailed description on pages 4 to 6 of the present specification explains the theory underlying the aforementioned additions. Essentially, specific meanings are given to some of the variables within the formulae on pages 4 and 5, which differ from the prior art method (see paragraph bridging pages 5 and 6 of the specification). In accordance with the presently claimed invention, a new approach is chosen resulting in the teaching to define apparent concentrations and apparent brightness, which depend on the width of the counting time interval, in the determination of theoretical photon count number distributions.

Additional matter in claim 19 is disclosed on page 7 of the instant specification (see equations 13 to 16 and the accompanying text). Additional subject matter in claim 30 is disclosed on page 4 of the instant specification (see equation 4) in combination with the text at the top of page 6.

Claims 1-6 and 12-16 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Kask (EP 0 884 583 A1). Claims 7-11 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kask in view of Palo (US 6,376,843). Claim 17 was rejected under 35 USC 103(a) as allegedly being unpatentable based on Kask in view of Dorsel (U.S. Patent No. 6,222,664). Reconsideration of the rejections is requested.

To establish anticipation, all limitations in the claim, as arranged in the claim, must be found in a single prior art reference. *Jamesbury Corp. V. Littion Industrial Products, Inc.*, 225 USPQ 253 (Fed. Cir. 1985). The absence from a prior art reference of a single claim limitation negates anticipation. *Kolster Speedsteel AB v. Crucible Inc.*, 230 USPQ 81 (Fed. Cir. 1986). A reference that discloses “substantially the same invention” is not an anticipation. *Jamesbury Corp.* To anticipate the claim, each claim limitation must “*identically* appear” in the reference disclosure. *Gechter v. Davidson*, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997) (*emphasis added*). To be novelty defeating, a reference must put the public in possession of the identical invention claimed. *In re Donahue*, 226 USPQ 619 (Fed. Cir. 1985).

At least the following limitation of claim 18 is not met by the method of the Kask.

theoretical distributions $P_1(\mathbf{n}_1), P_2(\mathbf{n}_2), \dots$ are calculated as functions of apparent concentrations and apparent brightness which depend on the width of the counting time interval.

Therefore, the § 102(b) rejection is not applicable against any of the present claims.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). When conducting an obviousness analysis, "all limitations of a claim must be considered in determining the claimed subject matter as is referred to in 35 U.S.C. 103 and it is error to ignore specific limitations distinguishing over the [prior art] reference." *Ex parte Murphy*, 217 USPQ 479, 481 (PO Bd. App. 1982).

The method according to the presently claimed invention is well suited for monitoring molecular interactions including receptors and ligands, which is of great relevance in the life sciences. Furthermore, it is characterized by single molecule sensitivity and the ability to detect coincidence of different molecules in time and space. It can be applied as a homogeneous method, i.e. washing steps are not required, and is therefore amenable to high throughput screening (HTS). HTS processes require a highly accurate data collection. The teaching of the instant invention represented by the claim 18 feature of using *apparent concentrations and apparent brightness which depend on the width of the counting time interval, in to calculate the theoretical photon count number distributions* results in outstanding precision. Even in cases where the prior art methods can

be applied in principle, the method of the presently claimed invention tends provide higher statistical accuracy. This is of great importance in applications such as HTS, where short data-accumulation times are vitally important.

The rejections under § 103 (a) fail for the same reasons as the rejections under § 102 (b). Neither Palo nor Dorsel teaches or suggests modifying Kask to include the missing features of the instant claims, identified above in connection with the rejection under §102(b).

Withdrawal of the double patenting rejection (obvious type) based on U.S. Patent No. 6,208,816 is in order in view of the pending claims presented hereby as is the provisional double patenting rejection (obviousness type) based on U.S. Patent Application Serial No. 09/445,428.

Reconsideration is requested with respect to the claim rejections under 35 USC. § 112, paragraph 2, in view of the changes to claim language represented in claims 18-37; in particular, attention is directed to claims 27, 28, 35, and 36.

Proposed drawing corrections to Figures 1, 3, and 5 are presented as attachments, hereto, as required in the Office Action.

The Examiner's refusal to "consider" references cited in the application is improper. As required by MPEP 707.05 (*emphasis added*):

The Examiner *must* consider all the prior art references cited in the application (alone or in combination).

The requirement of MPEP 707.05 reflects that the public interest would not be served by examination of a patent application that ignores references of which the Examiner is aware.

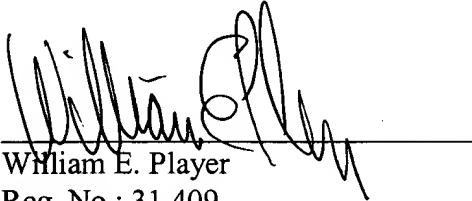
Atty. Dkt. No.: P64765US1
Serial No.: 09/779,461

Favorable action is requested.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By:



William E. Player
Reg. No.: 31,409

The Jenifer Building
400 Seventh Street, N.W.
Suite 600
Washington, D.C. 20004
(202) 638-6666
Atty Dkt. No.: P64765US1
Date: November 8, 2002
WEP/rdt
R:\HOME\erthomas\2002\November\P64765US1-Amdt